

Remarks

Claims are amended to more clearly define the invention in the current case. Basis for “at least three layers” is found at p. 5, l. 37 – 38 (paragraph [0020] of published application). Claim 1 is amended to make it clearer that the polymer itself (without any adsorbing agent such as zeolite) removes the volatile odiferous compounds (basis is found in the examples as well as other locations throughout Specification). Claims 4 and 5 are amended to make it clear that active amine adsorbing ingredients when added to the adsorbent film layer hinder adsorption (see examples and Specification at p. 6, ll. 27 – 33).

Applicants continue to confirm election of Group I, claims 1 – 8, but do so with traverse, continuing to maintain that due the related nature of the claims, examining the two groups together imposes no added burden on the Patent Office. The method of removing amines as claimed in Claims 9 – 12 merely involves using the packages of the elected Group I. As such, a search for the packages of Group I necessarily would capture all methods for removing amines that are totally limited to use of the claimed packages.

Claims 9 – 12 are withdrawn as being drawn to non-elected invention. Applicant respectfully requests that they be rejoined and examined.

Non-art Rejections

At present, Claims 4 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter applicants regard as the invention.

Claims 4 and 5 have been amended to clarify that the addition of active ingredient results in less adsorption of amine than when it isn't added.

Art Rejection - Novelty

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At present, Claims 1 and 4 are rejected under 35 U.S.C. §102(b) as being anticipated by Hekal (paragraph 15). This novelty rejection cannot stand because the cited reference does not teach all the limitations of the invention as presently claimed. Reconsideration of this rejection is requested in view of amendments and following remarks.

Applicant respectfully traverses the finding with respect to claim 1 based on the following:

1. Multilayer Structure – Hekal does not teach or suggest a structure having multiple polymeric film layers, particularly in a package. While Hekal may teach one film layer, it doesn't teach it as laminated to or coextruded with other polymeric film layers.

The office action points to p. 7, ll. 18 – 28 as teaching of “film layer that is placed in between two absorbent layers; i.e. a multilayer film.” There simply is no teaching of a multilayer film. The structure described here is that of a tampon, in which the two absorbent layers would not likely be a polymer film but would be a fabric as is typically used in tampons. It is not a “multilayer film” as defined in the present case (i.e. at least three polymer film layers) and now claimed for clarity. While many fabrics may be polymeric, they are not films.

The office action also points to p. 8, ll. 17 – 20 as a basis for assertion that Hekal teaches a “multilayer film.” This is not a fair reading of “... a film comprised of odor absorbing material of the present invention would be suitable for such applications of the present invention.” It only states “a film.” It does not state “a multilayer film.”

At p. 7, l. 28 to p. 8, l. 5, Hekal again says nothing about a multilayer film as defined in the present invention. It is a multilayer structure used in a feminine pad, diaper or panty liner, not packaging. It is not a structure having at least three polymeric film layers laminated to each other or coextruded with each other. At the most, Hekal teaches that the zeolite-containing material of the Hekal invention may be within the “pad”, on one side of the “pad”, or on both sides of the “pad”. It allows for an “elastic sheet full of cavities or pores” presumably to absorb liquid, but doesn't teach that this is a film, doesn't require use in the pad, and doesn't say where in the pad the elastic “sheet” would be used if it were used. While it may be possible that the zeolite-containing material could contact the elastic sheet, it doesn't necessarily do so. In deed there is not even a preference to include the elastic sheet in the structure (fabric would appear to be preferred). The pad includes a fluid impermeable backside layer that is generally a polyethylene

film. It is possible that this film layer could be in contact with the zeolite-containing material, but not necessarily so. Thus, there is no teaching of at least three polymer film layers laminated to each other or coextruded.

2. Polymer itself being adsorbent – Applicant has amended Claim 1 to make it clear that it is the polymer in and of itself without zeolite is the adsorbent material. Heckal does not teach or suggest that the polyethylene acrylic acid itself is adsorbent. In deed, Hekal teaches that the zeolite is the adsorbent material. Hekal states, "... the amine compound moves to the zeolite where it is adsorbed" (p. 6, ll. 2 – 3). Hekal goes on to state; "... polymers containing ethylene are used as they are more porous to the amines and permit ready migration of the amines into the matrix and hence onto the zeolite adsorbent contained in the matrix" (p. 6, ll. 6 – 9). This teaches away from the ethylene-containing polymers of the present invention being an adsorbent in and of themselves. One skilled in the art reading Hekal would believe that the polymer would be a conduit to the adsorbent, not an adsorbent itself.

3. Package containing food – The office action maintains that the fish wrapping is equivalently a package. There is no basis to say that it is equivalent. While it may be a package, the suggestion is that it more likely is not a package containing fresh fish or other perishable food items, but is more likely a wrap for spoiled fish. At p. 8, ll. 16 – 17, Hekal states, "... can be applied conveniently in fish wrapping or in covering for animal waste." Several lines later (ll. 20 – 21), Hekal states "... bags containing fish or animal waste can be lined ..." Read as a whole, the suggestion is that the fish is likewise in the first instance spoiled, not fresh fish. No basis is cited in the office action to support the bare assertion that fish wrapping is a package containing fresh fish.

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Even if there were a basis for the assertion that fish wrapping is a packaged fresh fish, other limits of the claimed invention are not met as discussed above.

The examiner takes the position that the limitations in the claims to "fresh fish or other perishable food contained in the package" is merely an "intended use" and does not give it much if any weight. This is not so. The

claim is to a packaged fresh fish or perishable food. As such, it is not an intended use, it is a claim limitations and must be given full consideration.

With respect to claim 4, Applicant requests that the above points taken with respect to claim 1 be taken with respect to claim 4. In particular, Hekal does not teach or suggest a film made from a polymer that is in and of itself adsorbent without the inclusion of an amine-adsorbing agent such as the zeolites. Hekal also teaches removing all of the amine, contrary to the present claims.

The zeolite required by Hekal is bound in a polymer matrix. Polymers used for the matrix can be polyethylene, polypropylene or polystyrene (p. 5, ll. 4 – 5), these polymers modified to contain carboxylic acid or anhydride functional groups (p. 5, ll. 11 – 13), polymers containing acid groups such as sulfonates, sulfates, phosphates, acrylates, phosphones, or other groups which in solution can react with amines to form salts, such as anhydride polymers (p. 5, ll. 19 – 23), or film-forming polymers including polyacrylate, polyethylene acrylic acid, polyethylene maleic anhydride, or polystyrene maleic anhydride polymers (p. 5, ll. 30 – 33). There is no basis for selecting a copolymer of ethylene with an  $\alpha,\beta$ -ethylenically unsaturated carboxylic acid having from 3 to 8 carbon atoms from the list. More importantly with respect to claim 4, there is no suggestion that such copolymer is in and of itself an adsorbent and no suggestion that the copolymer's adsorbency of "volatile odiferous compounds from a headspace between the multilayer polymer film and the packaged fresh fish or other food item inside of the package" reduced by the addition of the same agent that would, based on the teachings of Hekal, be expected to increase the adsorbency. Example 1 (60 wt.% zeolite and 40 wt.% polyethylene acrylic acid) in Hekal involves absorbing amines from a liquid, not a volatile compound from a headspace. 60 wt.% zeolite would be expected to remove all amine and in fact does (see p. 9, ll. 30 – 32). As can be seen in the examples of the present case, when sufficient zeolite (4 wt.%) is added to the partially neutralized (18%) copolymer of ethylene and 9 wt.% methacrylic acid (Ionomer 1), the amine adsorption at 72 hours is surprisingly hindered.

Art Rejection - Obviousness

16. At present, Claims 2, 4, and 6 are rejected under 35 U.S.C. §103(a) as being unpatentable over Hekal in view of Yoshikawa et al. Reconsideration of this rejection is requested in view of amendments and following remarks.

Applicant requests that Applicant's arguments that Hekal teaches away from use of the a copolymer of ethylene with an  $\alpha,\beta$ -ethylenically unsaturated carboxylic acid having from 3 to 8 carbon atoms in Paper 9 be reconsidered in view of the claims as amended.

Applicant also repeats other arguments made in earlier papers by reference and requests that they be reconsidered in view of the amendments.

With respect to Claim 2, Hekal is acknowledged as not teaching neutralizing the copolymer of ethylene with an  $\alpha,\beta$ -ethylenically unsaturated carboxylic acid having from 3 to 8 carbon atoms with metal ions. Yoshikawa et al. is used to cure that defect.

Yoshikawa et al. provides for a biaxially stretched, five-layer laminate film wherein the outer layer can be an ionomer and the inner layer (layer in contact with food) is an ionomer. The purpose of Yoshikawa et al. is to provide a multi-layer laminate film that is gas-impermeable, cold resistant, sealable by wire clips and by heat, and thermally shrinkable (see col. 2, ll. 41 – 46). The ionomer is used for the purpose of stabilizing the stretching operation thereby giving rise to the required shrinkability and conferring upon the produced film the heat-sealability, cold resistance, oil resistance, and particularly seal strength in the presence of an oil (see col. 4, ll. 37 – 43).

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While one skilled in the art wanting to impart the properties of Yoshikawa et al. to a structure of Hekal may be lead to use an ionomer in the structure, Applicant sees no suggestion to even use it as a matrix for the zeolite. Assuming, arguendo, that there were a motivation to neutralize the matrix polymer containing the zeolite, there would still be no suggestion to substitute the ionomer for the matrixed zeolite. Neither Yoshikawa et al. nor Hekal

suggest that the ionomer in and of itself without the addition of zeolite would act as an adsorbent.

With respect to Claim 4, it is not totally clear what Yoshikawa is relied upon to correct. Yoshikawa does teach multilayer polymeric films not taught in Hekal, but neither Hekal nor Yoshikawa suggest employing a zeolite to reduce adsorption of amine over time to a level that would eliminate noisome levels in package but not levels indicative of dangerous deterioration of food contents. Indeed this would be totally contrary to the teaching on Hekal in which the zeolite adsorbs all the amine. As discussed above, Applicant has demonstrated the surprising effect of adding zeolite or other amine adsorbing agent to the a copolymer of ethylene with an  $\alpha,\beta$ -ethylenically unsaturated carboxylic acid having from 3 to 8 carbon atoms. This showing should be sufficient to overcome any obviousness rejection. One would expect that adding any amount of zeolite would increase adsorption, not decrease it.

With respect to Claim 6, Yoshikawa fails to cure the deficiencies of Hekal for the same reasons discussed above. There is no suggestion that any level of acid comonomer has any level of adsorption in and of itself.

Thus, in view of the above, these obviousness rejections cannot stand as a matter of law and should be withdrawn.

17. At present, Claims 3 and 5 are rejected under 35 U.S.C. §103(a) as being unpatentable over Hekal in view of Kennedy et al. Reconsideration of this rejection is requested.

As discussed above, Hekal does not teach a package containing fresh fish or other perishable food wherein the package has at least three layers of polymer film laminated or coextruded with each other. Kennedy et al. is used to correct the stated failure of Hekal to teach a "sealant layer" in contact with the packaged fresh fish or other perishable food item. Applicants traverse this rejection based on the claims as amended, the points made above, and the following points.

1. Kennedy et al. teaches using two or more different polymers in the sealant layer. It allows for the use of less ionomer or no ionomer at all

without sacrificing the seal properties of ionomers (see p. 2, ll. 36 – 44).

There is no suggestion to employ the polymers of Kennedy et al. as an absorbent in and of itself. At most, the suggestion would be to substitute the two or more polymers for the ionomer used as the matrix containing the zeolite. Kennedy et al. provides for not using ionomer (ethylene acid copolymer) at all and therefore cannot possibly suggest a seal layer of the adsorbent film of the present invention short of using impermissible 20/20 hindsight based on the present invention.

2. With respect to claim 5, neither Kennedy et al. nor Hekal suggest that an agent known to adsorb amines could be used to hinder the adsorption of an adsorbent polymer. Hekal teaches away from any level of zeolite reducing adsorption because the entire teaching of Hekal focuses on zeolite as the sole adsorption agent. As such, one would expect that adding any amount of zeolite would increase adsorption, not decrease it. See examples in the present case for the surprising result of decreasing adsorption by using a material known for being an adsorbent.

Thus, this obviousness rejection cannot stand as a matter of law and should be withdrawn.

18. At present, Claims 3, 5, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hekal in view of Yoshikawa et al. and in further view of Kennedy et al. Reconsideration of this rejection is requested.

Applicant respectfully requests reconsideration in view of the amendments, above points, and the arguments made in Paper 9. Based on these, Applicant maintains that the obviousness rejection cannot stand as a matter of law and should be withdrawn.

19. At present, Claim 8 is rejected under 35 U.S.C. 103(a) as being  
unpatentable over Hekal in view of Andersson et al. Reconsideration of this rejection is requested.

Andersson et al. is used to fill the stated deficiency in Hekal of not teaching or suggesting a modified atmosphere in the headspace between the covering film and the food in the package. Applicant still takes the position that Hekal does not teach a package for food. As such, it is unlikely that one

skilled in the art would even consider modifying any "headspace" between the zeolite/polymer matrix and say the wrapped fish or animal waste.

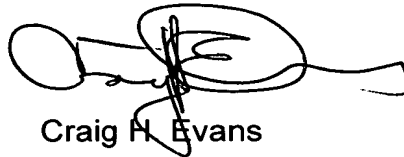
Even if one were to be led to include a modified atmospheric headspace, Hekal as modified would still be deficient for all the reasons stated elsewhere herein and in view of amendments to the claims.

Thus, this obviousness rejection cannot stand as a matter of law and should be withdrawn.

Conclusion

In view of the above remarks and the enclosed amendments, it is felt that all claims are now in condition for allowance and such action is requested. Applicant desires an interview before the next office action. The Examiner is urged to contact Applicant's attorney by telephone at (302) 992-3219 when the Examiner is ready for such an interview.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Craig H. Evans", with a stylized flourish extending to the right.

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